

Claims

1. Sheet buffering means for placement between paper handling equipment, such as a printer or a paper collator, and paper finishing equipment, for example, equipment for stapling and/or folding, **characterised in** that at least a set of a front pair of rollers with rotating rollers for feeding of a sheet between the rollers and a rear pair of rollers with rotating rollers for feeding of a sheet between the rollers, at least one roller in each pair is driven by a common motor or a motor each, the front driven roller is disengageable by means of a clutch for holding a lead end of a sheet at the same time as the rear driven roller is driven so that the sheet becomes bent between the two pairs of rollers, whereby also the rear pair of rollers is stopped when the trail end of the sheet reaches the rear pair of rollers, whereby the sheet may sustain bent until it is desirable to feed it out, which is achieved by starting both of the pairs of rollers.
2. Sheet buffering means according to claim 1, wherein the pairs of rollers may be driven in a higher speed when the sheet is fed out.
3. Sheet buffering means according to claim 1 or 2, wherein a sensor is provided for sensing the position of the lead end of the sheet for controlling the driving of the front pair of rollers.
4. Sheet buffering means according to claim 1, 2 or 3, wherein an inlet sensor is provided for sensing the position of the trail end of the sheet for controlling of the rear pair of rollers.

5. Sheet buffering means according to any of the preceeding claims, wherein at least two sets of front and rear pair of rollers are provided for buffering of at least two sheets.

5 6. Sheet buffering means according to claim 6, wherein a flap is provided before the rear pair of rollers for guidance of a sheet to desired rear pair of rollers.

10 7. Sheet buffering means according to any of the preceeding claims, wherein a guidance is provided between the front and the rear pair of rollers, which prevents bending of the sheet in the direction of the provision of the guidance.

15 8. Sheet buffering means according to any of the preceeding claims, wherein a friction brake is provided at the front pair of rollers.

20 9. A method of buffering sheets between paper handling equipment, such as a printer or paper collator, and paper finishing equipment, for example, equipment for stapling and/or folding, **characterised by** feeding a lead end of a sheet in between a front pair of rollers, stopping the front pair of rollers when the lead end of the sheet at least has reached the nip of the front pair of rollers at the same time as the rear pair of rollers continues to feed the sheet, whereby this bends between the two pairs of rollers, stopping the rear pair of rollers at the latest when the trail end of the sheet reaches the nip of the rear pair of rollers, starting, at desired occasion of feeding out, the front and the rear pair of rollers.

30 10. A method according to claim 9, whereby driving of the front and rear pair of rollers is quicker at feeding out than feeding in.

11. A method according to claim 9 or 10, whereby at least two sets of front and rear pair of rollers are provided for buffering at least two sheets.